



Saint Louis Audubon

Bulletin

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AUDUBON WILDLIFE FILMS



March 4, 1977 - 8:15 P.M.

Ethical Society, 9001 Clayton Road

SRI LANKA (CEYLON)-THE RESPLENDENT LAND

C. P. LYONS

Chess Lyons was born near Regina, Saskatchewan, in Canada, but his family moved to British Columbia a few years later. As a young boy, so much did he love to range the beautiful Okanagan Valley that it became a matter of fine judgement to balance the time spent playing hookey against the grade-passing requirements of school. However, Chess managed to make the right moves and graduated from the University of British Columbia in Forest Engineering.

Later, his work with the Parks Division of the British Columbia Forest Service took him to many of the most scenic areas of the province. His published works include books on the historic Fraser Canyon, the Okanagan Valley, as well as 'Trees, Shrubs and Flowers to Know in B. C.' For over 20 years an officer in British Columbia's Department of Recreation and Conservation, Mr. Lyons has had wide experience in problems dealing with conservation. Summer months have been devoted to producing a series of television programs with an outdoor theme for the Canadian Broadcasting Corporation.

Come enjoy this film of the Resplendent Land. There is a word of Sri Lanka origin which means 'pleasant things happening unexpectedly', and the word is serendipity. No other word could be more descriptive of Sri Lanka; coral reefs, fish, birds- from tiny sunbirds to jungle fowl and peacocks- and National Parks.

Over 2000 years ago, a king of Ceylon had laws inscribed in stone protecting the forests, fish, birds and mammals of a portion of his kingdom. The reserve remains today. There is a large acreage in Sri Lanka, an island of 25,332 square miles, given over to National Parks that harbor elephants, deer, sambhur, wild water buffalo, bears and leopards. Flowering shrubs and trees color roadsides where monkeys or elephants cross one's path, where bird-life is widespread.

The St. Louis Audubon Society invites you to enjoy via an Audubon Wildlife Film, this land of incomparable beauty, rich in wildlife, history and culture. Sri Lanka is a unique and intriguing experience.

This film is open to the public and free of charge. There is a parking area ...ample and with adequate lights. Bring your friends for an evening in Sri Lanka- the Resplendent Land.

Focus on the



BY BETTY WILSON
HAZARDOUS WASTE - A LEGISLATIVE PRIORITY

Hazardous wastes are the dangerous discards of our industrialized and technology-based society. These wastes are the toxic chemical, biological, radioactive, flammable and explosive by-products of some of our industries as well as of federal facilities. Proper management of these materials requires special handling and more controlled disposal than other wastes. Reuse and recycling, when possible, are primary disposal methods. Growing industry production, as well as tighter air and water pollution controls, are increasing the pressure for disposal on the land.

Some recent and dramatic examples of misplaced hazardous wastes are kepone in the James River in Virginia and the dumping of PCBs (polychlorinated biphenyls) in the Hudson River. Both of these wastes are highly toxic and have disastrous effects upon waterways.

The dumping of the pesticide kepone resulted in fines totalling \$17 million against two firms and two individuals. Russell E. Train, administrator of the Environmental Protection Agency, hailed the ruling as a "landmark decision." Allied Chemical was fined \$13,200,000 - the maximum allowable - after the firm pleaded no contest to 940 separate counts of discharging kepone and other highly toxic chemicals into the James River. Still pending are numerous private damage suits and others stemming from kepone-related illnesses.

General Electric has agreed to pay \$3 million toward cleansing the Hudson River of toxic PCBs that it had dumped there. In addition to the \$3 million for clean-up, the company has agreed to pay \$1 million for research on the PCB problem. The matter was brought to public attention last fall when high levels of PCBs were discovered in Hudson River fish.

Enough waste disposal incidents have occurred that public concern has led to regulatory activity by some state governments and by the U. S. Environmental Protection Agency. Such regulations will affect the generators of waste, the haulers and the disposal site operators.

In Missouri the special problems of hazardous wastes have been ignored until recently. Under our solid waste law problem wastes were banned from sanitary landfills. The result was either illegal dumping or export to other states. For more than six months a group of citizens (from various interests) have been drafting a bill to provide for the proper management of hazardous wastes.

The bill (HB 318) requires cradle-to-grave management through a manifest system. The generator must account to the state for final disposal. Indirectly, he is encouraged to reuse, recycle or send his waste through the St. Louis Hazardous Waste Exchange. HB 318 defines such key words as hazardous waste facility, storage, treatment and disposal. Hazardous waste is defined broadly with detailed criteria to be spelled out in rules and regulations.

The bill provides for a seven-member Waste Management Commission. The commission is empowered to adopt standards, rules and regulations to implement the law, to adopt a state hazardous waste management plan, to issue orders and to act as an appellate body to hear all appeals from department actions and to hear all petitions for variances.

Responsibilities of hazardous waste transporters are defined: Within six months after the commission adopts its regulations, transporters must obtain a license from the department and their equipment and operations must meet federal hazardous materials standards. They may accept only shipments of hazardous waste accompanied by a manifest and make delivery only to the permitted site designated by the generator.

Violations, enforcement and penalties are as follows: The department may seek from the courts for any violation of the law, rules or regulations, permit conditions, etc., an injunction or penalty up to \$10,000 per day for each day the violation occurs. The Highway Patrol and other

law enforcement agencies are empowered to arrest and detain transporters violating any transportation provision of the law and to notify the department or Public Service Commission so they may take civil action.

Section 2 of the proposed Missouri law lists four important exemptions to all provisions of the law.

1) radioactive wastes. 2) air emissions. 3) water discharges. 4) deep-well injections of fluids in connection with oil and gas operations, when these are regulated under other Missouri or federal laws. These exemptions are necessary to avoid duplicate regulations and conflicts with existing laws.

It should be noted that HB 318 does not regulate the processes by which a generator produces a waste, the quantity of waste produced or the physical or chemical characteristics of the waste. It does require safe disposal of any wastes produced.

The Resources Conservation and Recovery Act of 1976 was passed by the U. S. Congress immediately prior to adjournment and signed by the President on October 21. The act requires the U. S. EPA to set federal standards for regulating the "generation, transport, storage and disposal" of hazardous wastes. EPA, as with many other environmental programs, will be able to delegate implementation and enforcement of the standards to states with equivalent programs. For fiscal year 1978-1979, \$50 million was authorized for hazardous waste control grants. Congressional intent is for states to implement the program. Generous financial support is available for states who do so. In those states who fail to take action, EPA will implement the program in October, 1978.



Note on Weldon Spring

Betty Wilson



I attended a meeting of the Weldon Spring Task Force as a representative in December. At that time a planning consultant, John Lark, introduced a plan, with alternatives, which he is drawing up for the Coalition for the Environment. If his plan were to be promulgated, the area would be dedicated for the most part to an education center and open space. Mr. Lark will explain his plan at a meeting of the St. Louis Audubon Society in June.

In the meantime, the final report in a series prepared for the University of Missouri on the income potential of the University's 8000-acre Weldon Spring site in St. Charles County has been issued. It says the University should selling or leasing some or all of the land.

The report, prepared by HOK Associates, Inc. of St. Louis, suggests four alternatives:

--Sell the site, possibly in small pieces over a period of years to derive the maximum possible income and retain some degree of control over development. The report suggests that selling the land in smaller parcels would produce more income.

---Lease the site for development, in co-operation with developers.

-- Leave the land in its current state.

-- Establish a plan combining parts of the first three options.

The fourth alternative--retaining some of the land, selling part of it and leasing part of it--might be the best plan, the study suggests. "It would be in the best interests of the University to maintain land-use and development controls to protect its investment, insuring a high quality product," the study said.

SB47 - Missouri University Sale of Land (Frappier) would repeal Section 172.020, RSMo 1969 and enact one new section. It would provide that the University curators could not sell or convey title to any land contained within a university campus or to any portion of any university land parcel of more than 500 contiguous acres, without first having the transaction approved by the General Assembly.

This bill was heard by the Senate Committee on January 18th. It will take many weeks for it to make its way through the legislature.



GROWING UP WITH THE BLUEBIRD SURVEY

By: Chris K. Haller

1969 was my first year with the Bluebird survey, which had started the year before, in 1968. My family split into two teams to cover the two trails of 17 and 19 boxes, respectively. Deb and Mom together and Dad and I the other team. In the following years we sometimes went as a group and covered both trails, as we did not want to miss seeing any of the birds in the boxes.

The Hallers were just one group of ten or more who voluntarily hiked the trails once or twice a summer from the end of April through July. To vary our personal findings from year to year, we scheduled ourselves at different times during the nesting season so that we could see the eggs, the baby birds and the birds when they were ready to leave the nest. We also had variety in the weather. One year it was hot and raining and we were really uncomfortable in our plastic raincoats. But, the other years were really fun, such as the time a horse followed us to five of the boxes, nibbling on Mom's straw hat from time to time. Mom thought that the horse was just a little too friendly. Another time, we found a box completely off of its supporting post and on the ground. With a rock, we hammered it back into position. Once we saw a black snake, three feet from a Bluebird box, that caught us by surprise. We also saw many sparrows that had nested in the Bluebird boxes and who were not ready to give them up. They also caught us by surprise as they flew out of the box as we opened the top to look in.

The idea for the Bluebird survey started in 1967 when two Royal Air Force officers stationed at McDonnell Aircraft were bird watching at Sunny Ranch. They were surprised that so little information was available about Missouri's official state bird, the Bluebird. One Royal Air Force officer was Squadron Leader Philip G. Murton, who had been brought to Sunny Ranch by Marshall Magner. Squadron Leader Murton then brought out another Royal Air Force officer, Frank Kime, who was active in the Royal Air Force Ornithological Society. Together with Mr. and Mrs. Burrell Pickering, the idea for the Bluebird survey was formed. Thirty-six Bluebird boxes were built and erected in various parts of Sunny Ranch in 1968. This number grew to 60 boxes in 1972 and this number of boxes continues in the survey today.

There had been a rapid decline of the Bluebird, which is only found in North America. It was felt that the Bluebird project would be a start in increasing the Bluebird population, and from the survey, more could be learned about the type of bird house preferred by the Bluebirds and what were the best locations for the houses. Through the years, it was learned how high the bird houses should be above the ground and what protection was needed against predators, thus preventing a further decline of the Bluebird.

The results of the Bluebird survey from 1969 through 1976 are as follows:

<u>Bluebird Yearly Data</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
Boxes available	36	40	58	60	60	60	60	60
Boxes in which birds nested	24	23	36	50	45	42	40	39
Total nests		46	55	87	89	83	77	76
Eggs laid	150	212	248	393	387	386	369	355
Eggs per nest		4.6	4.5	4.5	4.3	4.6	4.8	4.5
Young fledged	79	137	195	299	289	278*	272	249
Percentage of success	53	65	79	76	75	72	74	70
Average per nest	3.25	3.0	3.5	3.4	3.2	3.2	3.4	3.2

* plus 5 Chickadees fledged

EGGS AND YOUNG DATA

<u>Eggs</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>Young</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
Total laid	386	369	355	Died in nest	13	15	14
Infertile or deserted	22	20	29	Lost to predators	18	17	26
Disappeared from nest	55	45	37	Fledged	278	272	249
Young hatched	307	304	289	Percent eggs laid	72	74	70
Percentage	80	82	81	Percentage of hatched	90	89	86

From this data we see that the young Bluebirds fledged reached their peak in 1972 and have been declining since then. Hopefully the decline in the number of young fledged indicates that the Bluebirds have found other cavities in which to nest. We know that Bluebirds nest only in natural or man-made cavities. Years ago they nested in old Woodpecker holes and in dead trees and fence posts. Since there are now fewer natural cavities, the Bluebirds must look to man-made boxes to build their nests. The drop in the number of Bluebirds fledged in 1976 may be due in part to the fact that this has been the driest summer since 1959.

Bluebirds seem to nest in houses in all types of areas. Houses placed in yards are often occupied, but should be placed about 4 to 5 feet off the ground. If higher, the sparrows seem to take over. The house should also be away from trees and fences so that it cannot be attacked by cats or squirrels. Mr. Pickering also suggest a two-foot metal bank around the post so animals cannot climb the post to the house. It seems that the houses in open, sunlit areas are preferred by the Bluebirds. The availability of feed attracts Bluebirds to the area. Bluebirds require a supply of berries and wild fruit to supplement their diet of insects. Poke berries, dogwood, sumac and cedar are favorite foods of Bluebirds that will not only attract them, but provide them with food when the colder weather starts.

By building and placing a Bluebird house in your own yard, you can attract a beautiful bird and also help the Bluebird to increase in numbers. You will also help the environment because the Bluebirds feed almost entirely on insects, many of which are injurious to plants and crops. I put up a Bluebird box in our yard and our family had the pleasure of watching our official state bird from our kitchen window. Let's hope you can too.



NATIONAL AUDUBON SOCIETY

MAPS SHOULD NOT READ: 'THE ATLANTIC OIL DRUM'

Before winds blow the Argo Merchant from our minds, it is time to examine the circumstances that make such accidents increasingly probable and to consider measures to reduce their occurrence.

At the present rate of growth, the amount of oil moving across oceans and through crowded channels will multiply six times by the end of the century- and this does not include oil transported by ship from offshore wells to costal refineries. Unless stringent safety measurers are imposed, we are headed for far greater catastrophes.

The Argo Merchant, from all accounts, was a floating menace. But tankers that are well-maintained also suffer major accidents, because our marine-transportation system is archaic, providing no room for human error, no adequate organization or equipment to assist the mariner in time of need.

Any hopes that the Intergovernmental Maritime Consultative Organization or the United Nations Law of the Sea Conference might facilitate the adoption of uniform standards are no longer realistic, and we remain at the mercy of such countries as Liberia, Panama and Cyprus to enforce alarmingly low standards for most of the world's shipping.

In 1972 Congress passed important legislation to remedy this situation. The Ports and Waterways Safety Act charged the Coast Guard with developing adequate standards for all tankers entering the United States waters. But the Coast Guard has done next to nothing to carry out that assignment and has even exempted most vessels from safety requirements intended by Congress.

What must be done?

1. The Coast Guard must develop standards for the repair, maintenance and the alteration of older vessels.
2. Ships entering United States waters must be required to carry more sophisticated electronic equipment, particularly collision-avoidance radar.
3. The Coast Guard should accelerate development of its vessel traffic system in narrow channels and speed the replacement of obsolete long-range navigation aids with equipment that allows a navigator to determine his position within a radius of one-quarter mile within 95% reliability.
4. Vessels must be better manned. The major attraction of flags of convenience is the low wages paid by the maritime industry. This often results in crews being ill-educated and ill-trained.
5. Certain standards required of every very large new ship must be applied to smaller vessels already in service. As the Argo Merchant illustrates, a vessel of less than 70,000 tons can do significant damage, yet ships of this size even under United States flag would not be covered by current regulations.
6. For an ecosystem despoiled, there is no adequate compensation; nonetheless, Congress should pass legislation that by means of an oil-transfer tax, would create a fund to compensate victims of oil spills as much as possible. The International Convention on Civil Liability for Oil Pollution Damage, in operation since 1975 defines the nature and extent of liability but sets a ludicrously low maximum of \$14 million in compensation and provides a large loophole by exempting acts of God.

7. Not only must the United States raise standards for United States ships, equally it must enforce such standards for ships of foreign flag within its waters. Serious consideration must be given to enforcing pollution controls to 200 miles from our shores. It will avail us little to claim exclusive control of fisheries to 200 miles if they are then destroyed by oil spills. And coastal nations should exercise the power to prevent substandard vessels from entering their waters. That we are powerless to act when a ship, however irresponsibly operated and maintained goes aground, endangers our fisheries and causes millions of dollars of damage is no longer tolerable.

World opinion and common sense dictate that all nations adhere to the safety rules for aircraft laid down by the International Civil Aviation Organization. A comparable United Nations agency should regulate sea craft which have no less capacity to kill- if more slowly- by poisoning seas.

Since the prospects for this are at best dim, we have no alternative but to impose our own standards.

It was the negligent acts of man that put the Argo Merchant on the Nantucket shoals; it was an act of God that saved the disaster from being far worse. But 7.5 million gallons of oil is a puddle compared to the spills that lie ahead unless we act soon.

By Elvis J. Stahr, President
National Audubon Society



C O N T E S T

FOR ST. LOUIS AUDUBON SOCIETY SYMBOL

Your Board of Directors has approved the suggestion that a design be selected which can be used as a symbol of our society on decals and cloth jacket patches. You are invited to submit a brief word description or sketch to illustrate any idea you would like to have considered. A committee will select those ideas deemed most appropriate and make recommendations to the Board of Directors for final approval. Please submit as many ideas as you like to the Bulletin Editor by April 15, 1977. Be sure to include your name and address on each entry.

Names of all persons submitting ideas that are selected for final consideration will be published in the St. Louis Audubon Bulletin. The earliest postmarked idea that is selected design will earn for its creator a twenty-five dollar award.

These decals or jacket patches with our society logo will provide a means of identification on our cars or on clothing used on field trips. This means of publicity not only helps identify fellow members, but can be an attractive gift that may encourage others to join our society and adopt our conservation goals. Please support this effort with your ideas.

What NATIONAL AUDUBON SOCIETY
CONVENTION FAMILY-STYLE

When June 9-12, 1977

Where YMCA of the Rockies, Estes Park, Colorado, adjacent to Rocky Mountain National Park.

PROGRAM

Friday evening — Opening General Session
Keynote Speech by Elvis J. Stahr, President
Progress Reports by Sanctuary and Research Departments

Saturday morning
9:00-11:00 a.m. — Workshops
A. Diagnosing the Health of an Audubon Chapter
B. Lobbying: What's Permissible? How to do it
11:00 a.m. — Major speakers of national reputation

Saturday afternoon
1:30-3:00 — Workshops
C. State Audubon Councils
D. Successful Chapter Programs
E. Audubon Education Approaches
3:30-5:00 — Workshops C, D, and E repeated

Saturday night — Another major speaker of national reputation, followed by a film of major interest.

Sunday morning
10:00 a.m. to Noon — Workshops on issues
F. Alaska Public Interest Lands
G. Strip Mining and General Mining Law Revisions
H. Clean Air Act (if issue still alive)

Sunday afternoon
1:30-3:30 p.m. — Workshops on issues
I. Returnable Bottle Legislation
J. Water Pollution Control Act Amendments
K. Coastal Zone Act and Land Use Planning
4:00-5:00 p.m. — Summing Up and Adjournment

Questions should be addressed to NAS Convention Manager, 2336 Sunset Lane, Greeley, Colorado 80631. Enclose a self-addressed stamped envelope for reply.

Requests for additional copies of this brochure should be sent to Convention, National Audubon Society, 950 Third Avenue, N.Y., N.Y. 10022.

APPLICATION FOR ACCOMMODATIONS

National Audubon Society Convention
Family-Style June 9-12, 1977

Reservations received after March 9 may not be filled; after that date, National Audubon is 'locked into' the number of rooms reserved for our members.

Rates include meals, lodging, membership and grounds fee, meeting space and a 10% gratuity for YMCA staff. These are package rates that cannot be prorated. For other arrival or departure times, write to the YMCA Registrar to make your individual arrangements.

Addresses:

Before May 15, 1977:
YMCA of The Rockies, Conference Registrar, 25 E. 16th Ave., Denver, Colorado 80202.

After May 15, 1977:
Conference Registrar, YMCA of The Rockies, Association Camp, Colorado 80501.

\$20 must accompany each reservation request; balance due on arrival. Deposit will not be refunded if reservation is cancelled less than 30 days before the conference.

Name _____

Address _____

City _____ State _____ Zip _____

If request is for a FAMILY please indicate total number of family members, including yourself: _____ adults, _____ children. List ages of children _____

If request is for a SINGLE please check: _____ I'm willing to share a room with up to _____ people per room. _____ I wish to share with the following registrants _____

_____ I wish a single room. Please submit individual reservation requests together if you plan to share a room with other than family members.

Package I — from June 9 Thursday lunch through June 12 Sunday lunch:

	Alpen Inn	Mt. Ypsilon Lodge	Ypsilon w/3/4 bath
Single	none	72.30 per person	none
2 to room	65.70 per person	59.10 per person	54.15 per person
3 to room	62.40 per person	55.75 per person	none
4-6 to room	59.10 per person	none	none
Bunked to 4	none	none	47.55 per person
Children	34.35 per person	34.35 per person	32.70 per person

Package II — from Friday June 10 lunch through Sunday June 12 lunch:

	Alpen Inn	Mt. Ypsilon Lodge	New Lodges, 3/4 bath
Single	none	46.20 per person	none
2 to room	41.80 per person	37.40 per person	34.10 per person
3 to room	39.60 per person	35.20 per person	none
4-6 to room	37.40 per person	none	none
Bunked to 4	none	none	29.70 per person
*Children	20.90 per person	20.90 per person	19.80 per person

*High school age and under occupying room with parents.

Rates are plus 3% sales tax.

1st choice:
Package _____ Building _____ Adults in room _____
Children in room _____ Adult rate _____ Children rate _____

2nd choice:
Package _____ Building _____ Adults in room _____
Children in room _____ Adult rate _____ Children rate _____

ACCOMMODATIONS: A limited number of room at YMCA have been reserved. Rates are modest and deadline March 9. Other nearby accommodations are motels in Estes Park. Write for information.

CONVENTION FEE: \$15.00 registration fee (no charge for children).

WEATHER/CLOTHING: Weather may bring anything. Plan for mildly warm days and cool nights. Layer your clothing with sweaters and jackets. Bring raingear for afternoon showers.

CHILD CARE: Thursday and Friday by YMCA staff. Other meeting times by volunteers. The cost will be at a minimum.

FIELD TRIPS

To assure quality experiences, all field trips will be accompanied by local naturalists. If you have a heart condition, check with your doctor before going to high elevations.

Thursday afternoon and evening:

Trip A -- Rocky Mountain National Park Moraine Park Museum and Bear Lake. Montane Zone. One of the Park's most picturesque areas. Many small mammals, birds, flowers, possibly deer. 12:30-3:30 p.m. \$8.

Trip B -- Geology, plants and animals of the Big Thompson Canyon, with discussion on the problems of floodplain development. 1:30-4:30. \$10.

Trip C -- Alpine tundra in Rocky Mountain National Park. 1:00-5:00 p.m. \$12.

Trip D -- Natural history of the YMCA grounds. Hiking. 1:00-3:30. No charge.

Trip E -- Birding and beavers. We'll bird before sunset and try to catch a few beaver at work after dark. 7:00-10:00 p.m. \$8.

Trip F -- Natural history of the YMCA grounds. Hiking. 7:00-8:30 p.m. No charge.

Trip G -- Star-gazing. 10:00 p.m. No charge.

Friday:

Trip H -- Pawnee Grasslands, Wellington ponds and Eagle Rock Audubon Sanctuary. Get a feel for the shortgrass prairie, see what goes on at a National Grassland, and visit one of National Audubon's largest sanctuaries. Expect to see prairie flowers, golden eagles, white-faced ibis, avocets, cinnamon teal, prairie falcons, McCown's and chestnut-collared longspurs, lark buntings, mountain plovers and possibly mule deer, pronghorns, badger and prairie dogs. 8:30 a.m.-5:00 p.m. Sack lunch. \$20.

Trip I -- Natural history of the alpine, sub-alpine and montane zones of Rocky Mountain National Park. 8:30 a.m.-3:30 p.m. Sack lunch. Comparison between the zones; geology, flowers, trees, birds, mammals, aquatic forms. \$18.

Trip J -- Natural History of the YMCA grounds. 1:00-3:30. No charge.

Trip K -- Star gazing. 10:00 p.m. No charge.

Saturday:

Trip L -- Star gazing. 10:00 p.m. No charge.

Sunday:

Trip M -- Early morning walk-about trips. No charge.

Monday, June 13 through Wednesday, June 15

A very special river rafting expedition on the Platte River along the Colorado/Wyoming border. Medicine Bow, Rabbit Ears and Sierra Madre Mountain ranges. North Park, North Gate Canyon. The float encounters abundant wildlife, rapid water and unique plant life including species of four major life zones. Nearly every trip produces bighorn sheep, elk, deer, beaver, golden eagles and bald eagles, plus many other species! The river is clear, clean and fishable (license required).

FIELD TRIP AND CONVENTION REGISTRATION FORM

To ensure that your requests can be filled, we must have the following information no later than March 9. If you will cooperate with this deadline, then the proper number of buses and/or vans, and an ample supply of hiking guides and child care volunteers will be on hand, and all of us can have a quality experience.

This form should be sent w/payment by, March 9 to: NAS Convention Manager, 2336 Sunset Lane, Greeley, Colorado 80631. Checks should be made payable to National Audubon Society. Refund less 10% if cancelled less than 30 days before convention; full refund before 30 days. Checks should include conference registration fee(s), field trip fee(s), and NAS charter bus from Stapleton fees.

Name _____
please print

Address _____

City _____ State _____ Zip _____

Phone _____

Family members accompanying me (include ages of children): _____

Indicate number of persons and second choices for trips.

_____ We plan to use Colorado Audubon Council volunteer child care on Saturday and Sunday (cost to be determined, but to be kept minimal).

1st choice	2nd choice	1st choice	2nd choice
_____ Trip A _____ \$8		_____ Trip H _____ \$20	
_____ Trip B _____ \$10		_____ Trip I _____ \$18	
_____ Trip C _____ \$12		_____ Trip J _____ Free	
_____ Trip D _____ Free		_____ Trip K _____ Free	
_____ Trip E _____ \$8		_____ Trip L _____ Free	
_____ Trip F _____ Free		_____ Trip M _____ Free	
_____ Trip G _____ Free		_____ Trip N _____ \$165	

(\$40 down)

_____ Conference _____ Official Chapter delegate
Registration, self \$15

_____ Conference _____ Official Chapter delegate
Registration, spouse \$15

We will be arriving (date, hour) _____

Our mode of transportation will be: _____ car; _____
Gray Line regular service from Stapleton Airport to Estes
Park; _____ NAS chartered Gray Line from Stapleton to
YMCA Camp. (\$11 round trip; \$6 one way).

We plan to depart (date, hour) _____,
by _____ car; _____ Gray Line regular service from Estes
Park; _____ NAS chartered Gray Line bus from YMCA
Camp to Stapleton Airport.

Total amount remitted _____.

Be sure to take binoculars, and if possible, a scope. On field trips in the higher elevations be sure to dress warmly.

Suggested reading: Field Guide to Western Birds; Field Guide to the Mammals; Birds of Denver and Mountain Parks by Niedrach and Rockwell; Field Guide to Wildflowers and Meet the Natives by M. Walter Pesman. If you cannot find these books in your area write to the Denver Museum of Natural History, Denver, Colorado.

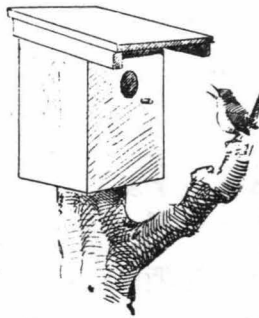
WELCOME SPRING



Many calls have been received asking for plans for building bird houses or where good bird houses could be purchased. Building your own bird houses is a good indoor project for these long cold winter evenings, and a fine time to build the popular purple martin house. If there are questions let us hear from you.

HOUSE WREN

Floor of cavity	4 by 4 inches
Depth of cavity	6 to 8 inches
Hole above floor	6 inches
Diameter of hole	1 inch
Height above ground	5 to 10 feet



The house wren was originally the wren of the timbered swamps and willow bottoms, but being broad minded and adaptable, it moved to town during the settlement of the countryside and took up housekeeping in the boxes that were provided.

All the subspecies of the house wren take kindly to boxes. Place them out by the middle of April, or earlier.

CHICKADEE

Floor of cavity	4 by 4 inches
Depth of cavity	8 to 10 inches
Diameter of hole	1 1/8 inches
Hole above floor	6 to 8 inches
Height above ground	5 to 15 feet

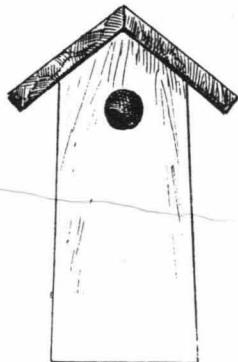


Chickadees will sometimes use a wren house, but most of the tribe are not so 'civilized.' A cylindrical, bark-covered box resembling an old downy wood-pecker's house, has much more appeal.

Feed the chickadees during the winter and they will use the box as a shelter. Then there is a better chance of their staying to nest.

FLICKER

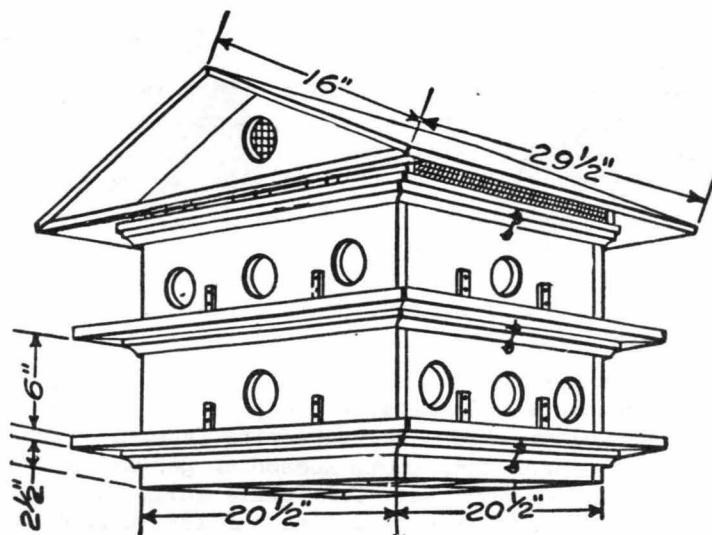
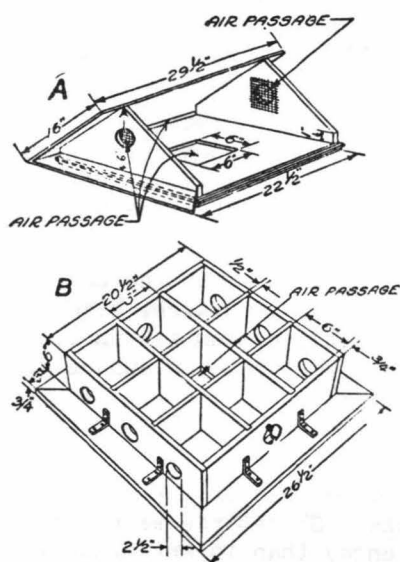
Floor of cavity	7 by 7 inches
Depth of cavity	16 to 18 inches
Diameter of hole	3 inches
Hole above floor	14 to 16 inches
Height above ground	8 to 20 feet



A skilled carpenter—the flicker—but when a good-looking piece of woodpecker architecture is offered, it readily accepts. The flicker in Michigan, that laid its eggs on the ground, would have jumped at such an opportunity.

Make the sides of the box of thick wood, not too hard. Sprinkle a handful or two of chips and shavings on the bottom.

PURPLE MARTINS



Place the house on a pole, 15 to 20 feet from the ground, *in the open* away from the shade of trees or buildings.

!announcement

The Saint Louis Audubon Society is launching a new and exciting project. Personally conducted AUDUBON NATURE TOURS will be offered members and their friends starting with a tour of Mingo National Wildlife Refuge...the Missouri Everglades.

The tour will leave on Saturday, May 21 and return Sunday afternoon. An experienced guide will accompany the trip. Cost will include round trip transportation, lodging for one night at a Holiday Inn, and meals. A nominal donation to the St. Louis Audubon Society is required and this is tax exempt.

Reservations are limited, and must be made early. For further information call Connie Hath, 965-8642.



St. Louis Area 1976 Birding in Review
By J. Earl Comfort

A review of the results of our 1876 birding within a 50 mile radius of the city shows a composite list of 290 species (subspecies and races of a species were not listed). This includes 4 species we will lose to "lumping" by the American Ornithologists Union (AOU) when the proposed checklist book (6th edition) is published.

The past year was outstanding, giving us some of the best birding we have ever experienced, either from the standpoint of listing or for sheer enjoyment. The consensus of opinion shows the 10 best birds in the AOU list order were red-throated loon, red-necked grebe, western grebe, Louisiana heron, surf scoter, prairie falcon, black rail, marbled godwit, blackheaded grosbeak and green-tailed towhee.

Some of the other rare species sighted range from quite rare to uncommon. In the AOU order they include the eared grebe, white pelican, white-winged scoter, oldsquaw duck, Mississippi kite, black vulture, goshawk, peregrine falcon, pigeon hawk (merlin), common gallinule, piping plover, ruddy turnstone, knot, Hudsonian godwit, avocet, northern phalarope, glaucous gull, laughing gull, Iceland gull, California gull, Black-legged Kittiwake, red-shafted flicker, Bohemian waxwing, black-throated blue warbler, common redpoll, red crossbill, white-winged crossbill, Smith's longspur and snow bunting.

Our impressive list was strengthened by 36 kinds of warblers, 38 members of the finch family, 32 shorebirds, 19 hawks and their allies and 22 species of ducks. Shorebirds were most cooperative, giving us more members of their family to list and enjoy than in any other year in our memory.

Places visited most often were the U.S. Mark Twain Wildfowl Refuge in Calhoun County, Illinois; Horseshoe Lake near Madison, Illinois; Frank Holton State Park in East St. Louis, the Alton Dam in St. Charles County; points along the Mississippi on both sides and last, but far from least, the August A. Busch Wildlife Area in St. Charles County.

Compiling the big list of 290 species gave area birders many hours of pleasure and excitement. Rare species were hot-lined, resulting in many "life" species for birders who would otherwise have been unaware these birds were in our area. Birders are among the most congenial nature buffs around St. Louis.

Additions to the "200" club

There was a record number of additions to this coveted "200" club in 1976. They include those who reported more than 200 species identified within a 50 mile radius of the city. No subspecies or races were included. The number listing 250 or more species also sets a record. Because the AOU has proposed drastic changes in its 5th edition checklist for its 6th edition, the lists presented contain the birds listed in the 5th edition plus those that will appear in the new list, which will be considerably smaller because many species have been "lumped" into one. A good example is the yellow-shafted flicker, which has been "lumped" with the red-shafted under the new name of common flicker. While the country as a whole will lose many species, our area, fortunately has only four kinds that will be "lumped".

Joey Eades led the birders with 268 species, two of them to be lumped to a total of 266. Viola Bucholtz was second with 260 and 258, followed by Kathryn Arhos, 257 and 255; Tim Barksdale, 257 and 254; Dick Anderson, 255 and 252; Earl Comfort, 254 and 251; Jack Van Benthuyzen, 252 and 250; Phoebe Snetsinger, 251 and 248; Kyrle Boldt, 249 and 246; Rose Ann Bodman, 248 and 246; Fred Rueggeger, 245 and 244; Terry Barker, 244 and 241; George Barker, 244 and 241; Yvonne Balsiger, 243 and 241; Mickey Scudder, 241 and 239; Vivian Liddell, 241 and 239; Janet Nielsen, 241 and 238; Claudia Spener, 239 and 237; Helen Wuestenfeld, 238 and 237; Vi Hallett, 238 and 236; Floyd Hallett, 234 and 232; Mary Wiese, 233 and 232; Mildred Schaefer, 232 and 231; Mary Frances Goodloe, 232 and 230; Dr. Joseph Eades, 224 and 223; Sylvia Hosler, 222 and 221; Martha Gadby, 221 and 220; David Jones, 220 and 218; Lynn Schaefer, 218 and 217; Dr. Robert Laffey, 213 and 212; and Mitzi Anderson, 212 and 209.

I wish to acknowledge the valuable assistance I received in compiling this list. Kathryn Arhos called several of the listers for their reports.



SOAR

In the fall of 1975, the St. Louis Audubon Society adopted a new project, SOAR, Save Our American Raptors, with a grant-in-aid to Dr. William Halliwell, Associate Professor of Veterinary Pathology at the University of Missouri, Columbia. All the birds treated in this program are protected by law and are beneficial to man. It is also intended that funds from the St. Louis Audubon Society assist in the establishment of a breeding program for native bald and golden eagles at the University.

The Audubon Society asks that sportsmen and the public generally report injured birds of prey so that the birds may be taken to Columbia for treatment. Please call the Audubon Society at 771-2731 or 965-8642, for pickup and delivery to Columbia.

An annual report for 1976 of the Project SOAR has been furnished by the University of Missouri. Listed are the species, diagnosis, procedure, disposition and the cost. The St. Louis Audubon Society is pleased to report this is an on-going project.

UMC RAPTOR REHABILITATION PROGRAM Annual Report - 1976

Species	Diagnosis	Procedure	Disposition	Est. Cost
Golden Eagle	fx humerus 2 ^o gun- shot	open reduction	to be released when recovered	\$250
Golden Eagle	mult. fx of wing and osteomyelitis 2 ^o gunshot	wing amputation	UMC research	\$ 50
Golden Eagle	fx tibiotarsus 2 ^o gunshot	open reduction	died 2 ^o pulmonary embolism	\$250
Golden Eagle	spinal injury 2 ^o gunshot	supportive	died	\$ 10
Bald Eagle	fx ulna 2 ^o gunshot	closed reduction	died 2 ^o septic shock	\$ 25
Bald Eagle	fx radius 2 ^o gunshot	open reduction	died	\$ 75
Bald Eagle	Cerebral hemor- rhage and fx humerus 2 ^o gunshot	closed reduction	died 2 ^o cerebral hemorrhage	\$ 40
Bald Eagle	fx phalanx with osteomyelitis 2 ^o steel trap	phalanx amputation	died 2 ^o renal failure	\$ 25

Red-Tailed Hawk	fx tarsometatarsi 2° steel trap	bilateral open re- ductions	released to wild	\$100
Red-Tailed Hawk	fx humerus 2° gunshot	closed reduction	released to wild	\$ 25
Red-Tailed Hawk	fx humerus, ulna 2° collision	closed reduction	UMC research	\$ 25
Red-Tailed Hawk	Capillariasis, rickets	antihelminthic and physical ther- apy	to be released when recovered	\$ 10
Red-Tailed Hawk	fx ulna 2° gunshot	closed reduction	to be released when recovered	\$ 25
Red-Tailed Hawk	fx humerus 2° gunshot	osteotomy and open reduction	to be released when recovered	\$100
Red-Tailed Hawk	mul. fx with osteomyelitis 2° gunshot	euthanized	-----	----
Red-Tailed Hawk	fx humerus with osteomyelitis 2° gunshot	euthanized	-----	----
Red-Tailed Hawk	mult. fx with osteomyelitis 2° gunshot	euthanized	-----	----
Broad Winged Hawk	fx humerus 2° collision	closed reduction	to be released when recovered	\$ 25
Goshawk	mult. fx 2° gunshot	closed reduction	died	----
Kestrel	fx humerus 2° collision	closed reduction	released to wild	\$ 10
Kestrel	Cr VIII injury 2° collision	supportive	released to wild	----
Kestrel	orphan	supportive	released to wild	----
Kestrel	fx humerus 2° gunshot	euthanized	released to wild	----
Great Horned Owl	fx radius 2° gunshot	closed reduction	released to wild	\$ 25
Great Horned Owl	bumblefoot	debridement and antibiotic therapy	died	\$ 50
Great Horned Owl	fx metacarpals 2° collision	closed reduction	released to wild	\$ 25
Great Horned Owl	fx metacarpals 2° collision	open reduction	to be released when recovered	\$ 75
Great Horned Owl	mult. fx 2° gunshot	euthanized	-----	----
Great Horned Owl	fx humerus with osteomyelitis 2° gunshot	euthanized 2° progressive oste- omyelitis	-----	----

Barred Owl	fx humerus with osteomyelitis 2 ^o gunshot	euthanized	-----	-----
Screech Owl	Trauma 2 ^o colli- sion	supportive	released to wild	----
Screech Owl	orphaned	supportive	released to wild	----
Screech Owl	cerebral hemor- rhage 2 ^o colli- sion	supportive	to be released when recovered	\$ 10
Screech Owl	fx humerus 2 ^o gunshot	euthanized	-----	----
Screech Owl	fx 2nd Metacarpal	open reduction	to be relased when recovered	\$ 25



CONGRATULATIONS TO THE MISSOURI CHAPTER OF THE NATURE CONSERVANCY

The Missouri Chapter of the Nature Conservancy has purchased three prized tracts of land in the state to protect them from development. The purchases include almost half of Buford Mountain in northern Iron County, half of the Koppers Tract in Bollinger County, and Maple Woods at Gladstone, on the outskirts of Kansas City.

Buford Mountain, in the St. Francois mountain region, extends for about four miles along Highway 21 south of Caledonia. It has been called one of the most prized pieces of wild land in private ownership in Missouri.

The Koppers Tract contains about 8300 acres in the hill country bordering the Missouri Bootheel. The Nature Conservancy purchased 4100 acres and the Kopper Company donated the remaining acreage to the group.

Maple Woods is a rare virgin sugar forest of about 40 acres. Some of the trees are 200 years old. The tract will be managed by the City of Gladstone.

The Missouri Chapter of the Nature Conservancy, with about 300 members, has been active in preserving native prairie lands and natural areas in the State of Missouri. Your interest in the Conservancy will help ensure the permanent preservation of our natural areas.



Land conservation through private action.



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Laura Dengler and Anne Dengler



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Please check the membership you desire:

Individual	<input type="checkbox"/> \$15.00 per year	Contributing	<input type="checkbox"/> \$100.00 per year
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Supporting	<input type="checkbox"/> \$50.00 per year	Life Member	<input type="checkbox"/> \$1,000.00

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SPECIAL Chapter Choice #2602

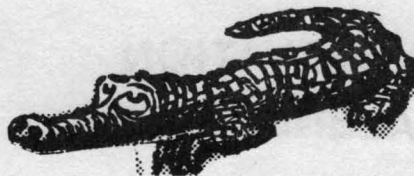
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CONSERVATION CALENDAR

February and March, 1977



FEBRUARY 1 TUESDAY 7:45 P.M. ST. LOUIS AUDUBON NATURE PHOTOGRAPHY SECTION MEETING
Clayton Federal Savings and Loan, Elm and Pockwood. Slide Critique by Walter Liddell.

February 3, 10, 17, 24 Thursdays - WGNSS Birding Trips - call Rose Ann Bodman, 961-2583
or Helen Bowman, 531-1748 for meeting time and place.

FEBRUARY 5 SATURDAY ST. LOUIS AUDUBON SOCIETY EAGLE COUNT Meet at Kamp Tog
Building, south of Clarksville, Mo. Hwy. 79, 8:30 A.M.

February 10 Thursday 7:30 P.M. Coalition for the Environment General Membership Meeting
New Mid-County Branch of St. Louis County Library, Maryland and Central in Clayton Program:
Environmental Legislation for This Session of the Missouri General Assembly

February 10 Thursday 8:00 P.M. WGNSS Botany Group Meeting Webster Groves Trust Company
Lockwood and Gore. Father Sullivan will speak and show slides on "Glade Plants - Strategies
for Survival."

February 11 Friday 8:00 P.M. WGNSS General Meeting St. Louis County Library on Lindbergh
just south of Clayton Road. Mike Gasparovic, Ranger with the St. Louis County Parks, is
working up a special slide program with emphasis on birds, botany and nature photography.

February 12 Saturday Ozark Chapter Sierra Club Hike up Black Mountain. Call Paul Stup-
pernick, 434-2432 if interested.

FEBRUARY 13 SUNDAY 10:00 A.M. ST. LOUIS AUDUBON SOCIETY NATURE PHOTOGRAPHY
SECTION ZOO TOUR Guided by Dianne K. Risser, Curator of Education

February 19 Saturday WGNSS Birding 8:00 A.M. Busch Wildlife Area. Meet in parking area
at Ahden Knight Hampton Memorial Lake. Bring binoculars and lunch. For more information
call Tom Brooks, 771-2731 or Rose Ann Bodman, 961-2583.

February 22 Tuesday 10:00 A.M. and 7:30 P.M. WGNSS Lower Plants Group. Meet at the
home of Lillian Nagel, 5616 Oleatha. Fungi will be the subject. Bring hand lenses and
any specimens you can find.

February 22 Tuesday 7:30 P.M. Sierra Club General Meeting St. Louis County Library,
Lindbergh just south of Clayton Road. Bill Diffenback will present a program on the
"Effects of Wing-Diking the Missouri River". It is injurious to wildlife.

February 26 Saturday Sierra Club Hike in Hawn State Park. Call Clyde Anderson, 644-5236
if interested.

MARCH 1 TUESDAY 7:45 P.M. ST. LOUIS AUDUBON SOCIETY NATURE PHOTOGRAPHY
SECTION MEETING Clayton-Federal Savings and Loan Auditorium. Gary Shackelford,
a winner in both Audubon nature photography contests, will talk on Wildlife
Photography, with especial emphasis on bird photography

March 3, 10, 17, 24 Thursdays WGNSS Birding Trips - Call Rose Ann Bodman, 961-2583 or
Helen Bowman, 531-1748 for meeting time and place.

MARCH 4 FRIDAY 8:15 P.M. ST. LOUIS AUDUBON SOCIETY WILDLIFE FILM. Ethical
Society Auditorium, 9001 Clayton Road. Description of program and speaker on
p. 1 of this Bulletin.

March 10 Thursday 8:00 P.M. WGNSS Botany Group Meeting. Webster Groves Trust Company
Lockwood and Gore.

March 11 Friday 8:00 P.M. WGNSS General Meeting. St. Louis County Library on Lindbergh
just south of Clayton Road.

CONSERVATION CALENDAR



March 12 Saturday Sierra Club Hike Call Barbara Muhlack, 428-2438 for time and place

MARCH 13 10:00 A.M. ST. LOUIS AUDUBON PHOTOGRAPHY SECTION WALK. Washington State Park, 12 miles southwest of De Soto on Highway 21.

March 22 Tuesday 10:00 A.M. and 7:30 P.M. WGNSS Lower Plants Group. Home of Lillian Nagel, 5616 Oleatha.

March 22 Tuesday 7:30 P.M. Sierra Club General Meeting. St. Louis County Library on Lindbergh just south of Clayton Road. Roger Pryor will give a program on "Missouri Natural Areas."

March 27 Sunday Sierra Club Trace Creek Trail Hike. Call Clyde Anderson, 644-5236 if interested.

APRIL 1 Friday 8:15 P.M. ST. LOUIS AUDUBON SOCIETY GENERAL MEETING
Ethical Society, 9001 Clayton Road. Two superb color films: "Farallon Light" and "Endangered Species".

APRIL 5 TUESDAY 7:45 P.M. ST. LOUIS AUDUBON SOCIETY NATURE PHOTOGRAPHY SECTION MEETING. Clayton-Federal Savings and Loan, Lockwood and Elm.
5-minute Slide Show.

MARK YOUR CALENDARS

MAY 8 SUNDAY Joint St. Louis Audubon and WGNSS Nature Outing and Workshops at Pickering's Sunny Ranch.

May 13-15 Friday night through Sunday. Missouri Chapter of the Nature Conservancy Annual Meeting at Bennett Springs State. Call Mrs. Hath at 965-8642 for further information.

MAY 16 MONDAY EVENING ST. LOUIS AUDUBON SOCIETY ANNUAL DINNER. Charles Schwartz of the Missouri Department of Conservation will show his newest film, "More Than Trees", a surprising close-up story of Missouri forests and their inhabitants.



MAY 21 and 22 SAINT LOUIS AUDUBON SOCIETY TRIP TO MINGO. Brochure will be mailed.

JUNE 10 FRIDAY EVENING ST. LOUIS AUDUBON SOCIETY GENERAL MEETING. Details in next Bulletin.

JULY 26 - AUGUST 8 ST. LOUIS AUDUBON SOCIETY PHOTOGRAPHY SECTION TRIP TO ISLE ROYALE. If interested, call 863-9346 for further details as soon as possible, as space may be at a premium.